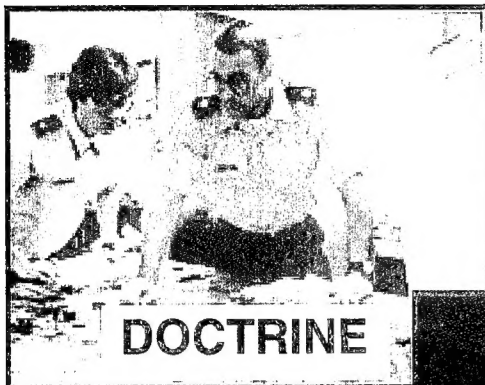
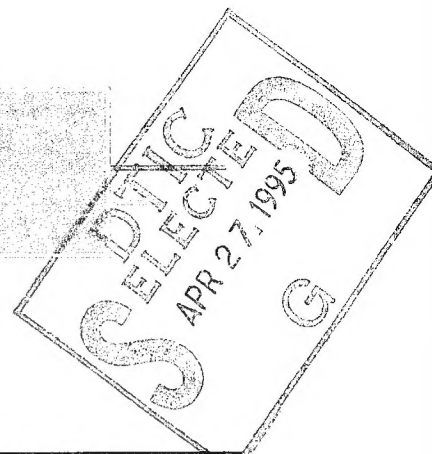


# TRAINING AND DOCTRINE COMMAND

## 2ND QTR - FY95 UPDATE



**DOCTRINE**



**TRAINING**



**MATERIEL**



**SOLDIERS**



**LEADER DEV**



**ORGANIZATIONS**

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TRADOC... WHERE TOMORROW'S VICTORIES BEGIN

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This is a pivotal time for the Army and the Training and Doctrine Command. Momentous changes in the strategic landscape, changes in our nation, and changes to our force structure present challenges and opportunities for all of us to accomplish the missions required of the U.S. Army. The business of TRADOC is to meet these challenges by identifying, developing, and fielding capabilities which are the right combinations of Doctrine, Training, Leader Development, Organizations, and Materiel to support our Soldiers. Following are some of the Army/TRADOC initiatives that will impact on the Army, our soldiers, and organizations in the not too distant future.

**GENERAL WILLIAM W. HARTZOG**  
**COMMANDER**  
**U.S. ARMY TRAINING AND DOCTRINE COMMAND**

## DOCTRINE

*The Army's doctrine lies at the heart of its professional competence. It is the authoritative guide to how Army forces fight wars and conduct operations other than war. Never static, always dynamic, the Army's doctrine is firmly rooted in the realities of current capabilities. At the same time, it reaches out with a measure of confidence to the future. Doctrine captures the lessons of past wars, reflects the nature of war and conflict in its own time, and anticipates the intellectual and technological developments that will bring victory now and in the future.*



### ARMY DOCTRINE

**FM 100-5, Operations:** The latest version of 100-5 was published on the Army's 218th birthday, June 14, 1993. As the Army's keystone manual, it focuses on warfighting, yet it addresses the full range of conditions within which the Army will operate. TRADOC has developed and fielded an education package containing teaching points on new concepts as they pertain to illustrated historical examples used in FM 100-5. The education package contains a CD-ROM disk, 35mm slide presentation, and video tape. TRADOC has distributed the education package down to

division level with sufficient copies for each brigade-size unit.

Contact or write Joint Visual Information Activity, Warehouse 3, Bay 3, Tobyhanna Army Depot, Tobyhanna, PA 18466-5102, DSN: 795-7937, COMM: (717) 894-7937, FAX DSN: 795-6106, for a copy of the education package.

**FM 100-6, Information Operations:** Will be the Army's capstone manual on how to win the information war in military operations now and into the 21st century. It identifies information as an essential element of military power at the strategic, operational, and tactical levels. It also defines the ways in which information will impact joint, multinational or interagency operations. It addresses the framework that will enable a commander to influence available information, protect his ability to sense, process integrate, decide, act on that information, and attack his adversary's ability to do the same. (To be published 3QTR, FY95).

**FM 100-7, Decisive Force: The Army in Theater Operations:** The Army's capstone manual for conducting operational level activities linking tactical level actions to theater objectives. This manual describes the requirement for the Army Service Component Commander (ASCC) to conduct the three strategic and operational level roles: establish joint, combined, interagency, nongovernmental agencies, and private voluntary organization linkages; conduct support operations; and conduct operations. (To be published 2QTR, FY 95.)

**FM 100-8, The Army in Multinational Operations:** Will be the Army's capstone manual for conducting multinational operations. This manual addresses multinational command relationships and leadership considerations. Discusses factors affecting planning, possible coalition/alliance command structures, and functional considerations for the commander at the operational and tactical level. (To be published 3QTR FY95.)

**FM 100-10, Logistics Operations:** Depicts the Army logistics organizations and describes how they support commanders at all echelons by integrating supply, transportation, maintenance, health services, personnel support, and field services. Provides the basis for subordinate logistics doctrine, materiel, training, and

organizational development. (To be published 2QTR FY95.)

**FM 100-12, Army Theater Missile Defense**

**Operations:** This manual will describe roles, responsibilities, requirements and functions for each of the operational elements of TMD. The manual will be developed to comply with approved joint doctrine and will address the threat, active and passive defense, attack operations and C4I. Emphasis will also be given to integration of Army TMD efforts throughout the theater of war. (To be published 3QTR FY96.)

**FM 100-13, Battlefield Coordination Element:**

This capstone manual will provide a current single source document addressing doctrine, organization, training, materiel, leadership, and soldier support for the Battlefield Coordination Element. (To be published 3QTR, FY95.)

**FM 100-15, Corps Operations:** The new FM 100-15 will bring corps doctrine in line with current Army doctrine. The central focus of the manual will be warfighting. The manual also will address force projection operations in war and operations other than war and the structure of the battlefield and battle command of the corps. Finally, it will delineate battlefield responsibilities in the joint environment, to include operations as a JTF/ARFOR headquarters. (Initial draft was published 4QTR, FY94.)

**FM 100-16, Army Operational Support:** This manual addresses operational level logistics and support functions - CONUS through theater level. It specifically addresses the operational commander's vision of support; keys to operational support; theater organization and structure, operational level logistics functions; operational level support functions and force protection and rear operations. FM 100-16 also reflects the current Army focus on contingency operations and force projection. (To be published 2QTR FY95.)

**FM 100-17, Mobilization, Deployment,**

**Redeployment, and Demobilization:** The manual is a guide for Army commanders and planners. It provides doctrine across the range of military operations for the development of Army policy for planning and executing mobilization, deployment, redeployment, and

demobilization (MDRD) elements and operations. Through the use of the required assets (force/units, manpower/individuals, facilities, and logistics), this definitive process implements effectively and efficiently operational plans in support of the national military strategy. (To be published 3QTR, FY95.)

**FM 100-17-1, Army Pre-positioned Afloat:**

This manual describes Army War Reserve-3 (PREPO AFLOAT) operations to include missions, capabilities, command relationships, communications, and security. It discusses the organization, responsibilities, and command relationships ranging from the National Command Authorities, Joint Chiefs of Staff, Combatant Commander (CINC), to the Brigade Commander performing the PREPO AFLOAT mission. (Manual currently with editors in preparation for publication.)

**FM 100-18, Space Support To Army**

**Operations:** Will be the Army's capstone manual on how to use space system capabilities to enhance mission accomplishment across the full range of military operations to include operations other than war. It emphasizes enhancements offered by space system in communications; reconnaissance, intelligence, surveillance, and target acquisition (RISTA); weather, terrain, and environmental monitoring, position and navigation; and missile warning. This manual provides a foundation for leader development, training, and space-related modernization initiatives that support the Force Projection Army's missions and provides soldiers with a decisive advantage worldwide. It is relevant from the highest levels of command to the soldier in the foxhole. (To be published 2QTR, FY95.)

**FM 100-19, Domestic Support Operations:**

Describes the concept, interface, and process of providing Army assistance to U.S. civil authorities. It serves as a reference for service and professional military education and includes mandated and legislated requirements. It includes considerations and principles for command and staff planning and execution. FM 100-19 incorporates lessons learned from numerous operations and recognizes the requirements dictated by the National Military Strategy. Coordination with DA staff, TRADOC, MACOMs, CINCs, joint staff, and federal, state, and local governmental agencies is being



conducted to ensure harmonized actions. Finally, this manual emphasizes the linkages of interagency operations and missions. (Published 4QTR, FY93.)

**FM 100-23, Peace Operations:** Provides guidance to commanders for conducting the full range of missions in support of international peacekeeping and peace enforcement efforts. This manual addresses the special requirements of these operations, to include planning, force tailoring, command, control, coordination, liaison, logistics and intelligence. It also reviews the unique operational environment of peace operations, including United Nations and non-United Nations' operations, as well as the requirements for operations in the interagency arena and with multinational forces and non-governmental organizations. It applies the principles of operations other than war and tenets of Army operations to peace operations and examines the variables of consent, use of force, and impartiality. (Published 1QTR, FY95.)

**FM 71-100, Division Operations:** This manual addresses tactical operations of the division in war and operations other than war. Focus is on division deployments and warfighting. It will apply new concepts addressed in FM 100-5 to division operations. The new FM 71-100 will be integrated both vertically and horizontally with recently written field manuals such as FM 101-5, Staff Organization and Operations; and TTP manuals FM 71-100-1, Armor and Mechanized Division Operations; FM 71-100-2, Infantry Division Operations; FM 71-3, The Armored and Mechanized Brigade; and FM 7-30, The Infantry Brigade. (DRAG in March 1995.)

**FM 71-3, Armored and Mechanized Infantry Brigade:** The U.S. Army Armor Center is proponent for this manual. They are writing it in concert with the U.S. Army Infantry Center and School. The latest version of FM 71-3 incorporates new Army doctrine reflected in the 1993 edition of FM 100-5. The manual will include doctrine and tactics, techniques and procedures for armored and mechanized brigades in conducting operations across the entire range of military operations. (To be published 4QTR FY95.)

**FM 71-2, Tank and Mechanized Infantry Battalion Task Force:** The U.S. Army Infantry School is lead for this manual. The revised FM

71-2 will incorporate new Army doctrine reflected in the 1993 version of FM 100-5. The focus of this manual will be warfighting with considerations for operations other than war. It will provide TTP for employment of force as it exists and will provide annexes for digitization of the tank and mechanized infantry battalion task force. (To be published 2QTR, FY96.)

**FM 71-1, Tank and Mechanized Company Team:** The U.S. Army Armor Center is lead for this manual. Revised FM 71-1 will provide tactics, techniques and procedures (TTP) for the M1A2 and Bradley company/team. It will refine mission profiles and provide TTP for heavy/light link-up and operations with task force scout platoons. Data collection is ongoing; manual revision is programmed to begin upon publication of FMs 71-2 and 71-3.

(POC - ARMY DOCTRINE, COL Baldwin, DSN 680-3080/PROFS BALDWINR)

## **JOINT DOCTRINE IMPLEMENTATION**

**JP 3-0, Doctrine for Joint Operations:** TRADOC has written 12 joint publications that the joint staff has approved and published. The most significant of those is JP 3-0. It is the joint keystone operations equivalent of FM 100-5 and affects most other important pubs in the joint system. (Published 4QTR, FY93.)

**JP 3-07, Joint Doctrine for Military Operations Other Than War:** Expands the discussions in JP 3-0 of the principles and considerations associated with joint operations below the level of large scale, sustained combat operations (To be published 3QTR, FY 95.)

**JP 3-09, Doctrine for Joint Fire Support:** Clarifies relationships and responsibilities for those fires that assist land and amphibious forces to maneuver and control territory, populations, and key waters. Included are discussions on issues such as FSCL, Joint Targeting Coordination Board (JTCB), and relationships between air, land, and sea components. (To be published 3QTR, FY95.)

**JP 3-18, Joint Doctrine for Forcible Entry Operations:** Provides guidance concerning joint forcible entry operations. This publication addresses forcible entry principles concerning

C2, planning, execution, and support, as well as the interface between airborne, special operations forces, and naval expeditionary forces (amphibious forces). (To be published 4QTR, FY95.)

**JP 3-18.1, Joint Airborne and Air Assault**

**Operations:** Provides guidance on employment of airborne and air assault forces. This publication integrates existing Service doctrine into a single source publication that addresses principles of C2, planning, execution, and support requirements involving airborne and air assault operations. (To be published 4QTR, FY95.)

**JP 5-00.1, Joint Tactics, Techniques, and Procedures for Campaign Planning:**

Discusses the tactics, techniques, and procedures for planning and implementing theater and subordinate campaigns in war and operations other than war. (To be published 2QTR, FY95.)

(POC - Joint Doctrine, COL Rowlett, DSN 680-3153/PROFSROWLETR)

**CINC SUPPORT PROGRAM:** The CINC Support Program represents a major initiative by which TRADOC provides support to warfighting CINCs on behalf of the Chief of Staff of the Army. The concept of the program is to assist CINCs in accomplishing their missions and objectives through a program of focused and responsive support in the areas of doctrine, training, leader development, organizations, materiel, and soldiers (DTLOMS). The cornerstone of this program is an annual TRADOC team visit to CINCs. In FY94 visits were made to USACOM, FORSCOM, SPACECOM, USFK, PACOM, and CENTCOM. During the 1 QTR, FY95, TRADOC visited SOUTHCOM and EUCOM. A significant trend in support throughout the CINC's area of responsibility has been training of joint forces, peace operations, and recognition of multinational environments.

(POC - CINC Spt, LTC Lewis, DSN 680-2298/PROFS LEWISC)

**FUTURE DOCTRINE TRADOC PAM 525-5:**

The scope and pace of change today requires the Army to stay ahead doctrinally. We think we know enough about the future to act now.

Therefore, we are working several future doctrine initiatives, principal among them is TRADOC Pam 525-5. Tentatively titled Future Full-Dimensional Operations, this version of 525-5 is unlike previous pamphlets. It is more conceptual and it is intended to be a living document, designed to stimulate thought, sharpen focus, and generate discussion on future joint land operations. The concept looks at the impacts of strategic change and revolutionary advances in information technology. TRADOC Pam 525-5 has two central themes: first, that coexisting hierarchical and nonhierarchical command information systems will enable battlefield coherence through shared knowledge vice physical means; and second, that common, relevant, situational awareness will fully advantage capabilities of commanders, soldiers, and weapons technology. (3d version published 4QTR, FY94.)

(POC - Future Doctrine, COL Starry, DSN 680-4126/PROFSSTARRYM)

**INTELLIGENCE**

**TRADOC Pam 350-12 thru 17, Heavy/Light Opposing Force (OPFOR) Handbooks:**

The TRADOC DCSDOC Directorate of Intelligence is the proponent for this pamphlet series. These manuals empower OPFORs with a capabilities-based organization and doctrine meant to replicate the full range of operational threats at CTCs, home station training, and in simulations and modeling. The Heavy OPFOR Organizational Guide (Pam 350-12), Heavy OPFOR Operational Art Handbook (Pam 350-14), Heavy OPFOR Tactical Handbook (Pam 350-16), Light OPFOR Organization Guide (Pam 350-13), and Light OPFOR Operational Art Handbook (Pam 350-15) are published. The Light OPFOR Operational Art Handbook (Pam 350-17) will be published in 3QTR, FY95. Future pamphlets will include a Partisan/Guerrilla handbook and an OPFOR Equipment capabilities guide (to be published 4QTR, FY95).

(POC - CTC Support Branch, LTC Jeff Dunham, DSN 680-5419/PROFS DUNHAMJ)

**INTERNATIONAL ARMY PROGRAMS:** In support of the National Military Strategy and to enhance the U.S. capability for multinational operations, TRADOC remains extensively



involved in international activities with allied and friendly armies. Involvement includes bilateral staff talks and conferences with 11 armies, participation in approximately 40 multinational working parties, and several Subject Matter Expert Exchanges (SMEE) with the armies of Japan, Latin America, and European nations. A total of five SMEES are scheduled during the 2QTR, FY95. During this period, TRADOC will also conduct steering committee meetings with the United Kingdom, Canada, Italy, and host several visits of foreign military dignitaries. Additionally, this headquarters will provide doctrinal support to USAREUR and FORSCOM as they prepare for peacekeeping exercises with the Ukrainians and Russians, respectively, late this year.

(POC - IAPD, COL Whittenberg, DSN 680-2741/PROFS WHITTENS)

## TRAINING

*Our challenge is to maintain the essence of our education and training system, the Army University, not the pieces. This means a quality school system, but not necessarily at the current locations. Our training strategy must utilize the best combination of live, virtual and constructive simulations and simulators. This strategy must unite the many ongoing efforts into a clear, coherent vision to produce trained and ready units in the environment of the next century. Some of our efforts in that direction follow.*



**Military Training Structure Review:** In January 1993 the Services Interservice Training

Review Organization (ITRO) initiated a three-year, Joint Chiefs of Staff directed effort to eliminate training duplication and create savings.

Consolidation of Calibration, Helicopter Maintenance, and Water Survival training resulted from calendar year 1993 decisions. To date, ITRO has initiated more than 60 studies and is working to implement the following training consolidations/collocations approved during 1994: Civil/Construction Engineer (Fort Leonard Wood, MO; Gulfport, MS; Sheppard AFB, TX; Port Hueneme, CA; Aberdeen Proving Ground, MD; and Goodfellow AFB, TX), Motor Vehicle Operator (Fort Leonard Wood, MO), Food Service (Fort Lee, VA), Welder (Aberdeen Proving Ground, MD) and Corrections (Lackland AFB, TX).

(POC - Mr. Shepherd, DSN 680-5645/PROFS SHEPHERE)

**Future Army Schools 21 (FAST):** FAST has transitioned into the Total Army School System Coordination Activity (TASSCA). Their future goal is a school system that makes the component of the institution and the instructor transparent to the student; oversees the Region C Pilot now underway through FY95 for evaluation; impacts all proponents through the functional area: Combat, Combat Support, Combat Service Support, Leader Development, Officer Education, and Health Services. Bottom line is for instruction to include a common curriculum across component boundaries.

(POC - LTC Armstrong, DSN 680-5526/PROFS ARMSTROJ)

**Distance Learning:** The application of Multiple Means and emerging technologies to deliver standardized training (Individual, Collective, and Self Development) at the right place and the right time. It is being applied to a full range of Terminal Learning Objectives, for both leadership as well as technical skills. Multimedia applications include Video Teletraining, Computer Based Instruction, Asynchronous Computer Teleconferencing, Video Tape, and Paper Based Training Products. Initial applications of this new technology can be found in the Region C - FAST Pilot Program (FY94-95), CMF Training for the RC at Ft Knox, 13 CMF Training for the RC at Ft. Sill, NCOES Enhancement for the RC at Ft Bliss, and Language Sustainment Training at DLI.

(POC - Mr. McCarthy, DSN 680-5536/PROFS MCCARTHP)

**Warfighter XXI (formerly Army Training XXI):**

Today's Army is facing new challenges - information age warfare on the digital battlefield, expanding roles and missions for a power projection Army, and operational TEMPO. Simultaneously, the Army is drawing down and restructuring the force. All of these actions contribute to dangerous levels of turbulence and indicate a need for a new Army training strategy. Warfighter XXI (WF XXI) is TRADOC's strategy for individual, thorough Joint Task Force level training, utilizing the best combination of live, virtual, and constructive environments to train the Army of the 21st century. While individual level is included in the strategy, the primary focus is unit collective training.

The five components of the WF XXI campaign plan are: the Standard Army Training System (SATS); Training Support Packages (TSP); Training Aids Devices, Simulations, and Simulators (TADSS); the Standard Army After Action Review System (STARRS); and the Interactive Data Library. SATS (under development by the Army Training Support Center) will provide an automated training management system designed to enhance the planning, assessment and execution of battle-focused training resources for the unit and institutional commander. TSPs (brigade and battalion TSPs are under development by the Force XXI Training Program) will provide an automated, structured situational training template resourced to generate training events for unit and institutional commanders. TADSS (under development by the Army Training Support Center) provides integrated, effective tools for the unit and institutional commander to efficiently conduct training. The STARRS will provide a standardized, automated storage and distribution system giving the unit and institutional commander a training evaluation and resource tool and the Army a doctrinal based information collection system. The Library (under development by the Army Training Support Center) provides unit and institutional commanders access to the many information systems (sources) necessary to answer the questions of what, when, where, how, and resources required to develop effective training programs.

To enhance the full understanding of each components relationship with each other and to integrate developmental milestones, the first bi-annual WF XXI conference will be held 27 February through 3 March 1995.

(POC - LTC Banning, DSN 553-4498/3919/PROFS LEA1(BANNINGR))

**Classroom 21:** Classroom 21 will be a modernized classroom electronically networked and capable of assessing digitized training materials, archived materials, and information from unlimited sources. It will possess the ability to bring the battlefield into the classroom through video teletraining, computers, simulations and simulators. Students will be able to participate in horizontally and vertically integrated training scenarios with soldiers from other Army schools, CTCs, units, and eventually other services. Ft Eustis has been designated as the first model classroom. Projected completion date is Apr 95.

(POC - Ms. Moore, DSN 680-5542/PROFS MORREM)

**Training Aids, Devices, Simulations, and Simulators (TADSS):**

Current thrust is the review and integration of system and nonsystem requirements to achieve a balanced TADSS investment strategy across the Battlefield Operating Systems (BOS) in support of Force XXI training needs. The Army Training XXI Campaign Plan will set the azimuth for validation and prioritization of TADSS and form the basis for harnessing and training Sim2 technology initiatives. Phase I was a TADSS requirements scrub for all BOS followed by an integrated system/nonsystem prioritization effort conducted 9-13 Jan 95. The plan for Phase II is for HQDA and SARD to use the output of Phase I as the basis for developing a funding strategy. This effort executed guidance for Jun 94 Sim2 Functional Review and subsequent Sim2 PAT on the integration Test Evaluation Management Office (TEMPO) domain Sim2 requirements. Results of these efforts will feed the WFLA/POM process and ultimately provide the fiscal resources to meet Div XXI training objectives.

(POC - Mr. Ronnenberg DSN 927-2446/PROFS RONNEBED)

**Operations Group Delta - JTF Training:** Battle Command Training Program (BCTP), Operations Group D is tasked with the mission to prepare Army organizations for joint command and control roles. They work closely with Army service component commanders and Warfighting CINCs to bring the rigor of BCTP to joint exercises, in which an Army organization is acting as a JTF or ARFOR HQs. The primary training audience is the corps in a joint role, but divisions and ad hoc joint organizations have been supported. The team is capable of providing home station seminars, support to exercises, and support to operational missions.

(POC - LTC Weith, DSN 680-5747/PROFS WEITHG)

## LEADER DEVELOPMENT

*"Today's Army is growing into the future precisely because we have invested the time, money, human ingenuity, and hard work in leader development over nearly two decades. As we grow we must retain the essence of our leader development process - its warfighting focus. The basics must come first: troop leading procedures; the command estimate process; and intelligence preparation of the battlefield, to name a few." These thoughts from GEN Sullivan will focus our efforts in the future. We will strive to maintain the finest leader development system in the world in all areas. Some key initiatives are:*



**Nine-Month Sergeants Major Course:** This expanded course begins in Aug 95 and will provide warfighting and logistics instruction equal to the demands of a Force Projection Army. This year marks the first Sergeants Major Academy class to complete the entire NCOES program, from PLDC through Sergeants Major Academy. Sergeants Major will be trained in a state-of-the-art facility and will be ready to meet any challenge.

(POC - Mr. Jones, DSN 680-5673/PROFS JONESR)

**Officer Foundation Standards (OFS):** A system that standardizes officer institutional training and provides a tool for use by commanders and individual officers. Focus is institutional common core, can be used for reference tool in the field. Center for Army Leadership has undertaken conversion of the existing Military Qualification Standards (MQS) to OFS following a Chief of Staff, Army directed and approved review. OFS project takes place concurrent with common core revision and serves as foundation for revising common core for remainder of OES (CAS3 and CGSOC) and WOES/NCO training. Leveraging technology, OFS will be developed utilizing the Automated System's Approach to Training and produced on CD-ROM versus paper products.

(POC - Mr Ligon, DSN 680-5661/PROFS LIGONJ)

## ORGANIZATIONS

*We have observed through constructive and virtual simulation that significant increases in lethality, survivability, and tempo are possible in existing organizations using current doctrine when digital communications are integrated horizontally and vertically across combined arms teams.*



### **Top Down Force Design and Organization**

**Modularity:** Based on the recently approved Modularity Concept, TRADOC will continue development of modular, functionally-based force that can better support the current force and are aligned with Force XXI development initiatives (examples of modular organizations are provided below). The Top Down Force Design concept focuses on development of organizations designs that eliminate redundant "Cold War" Headquarters and streamline other force C2 structure and organizations. Near term Top Down Force Design/Modularity efforts are designed, evaluated and approved through the semi-annual Force Design Update (FDU) process and executed in the Total Army Analysis (TAA) process. Far-term Top Down Force Design/Modularity efforts will be integrated into Force XXI development initiatives. Goal is to field an "adaptable" force with improved force tailoring, adaptive packaging and deployability beginning year 2000.

(POC - CPT Healy, DSN 552- 8686/PROFS LEA1(HEALYS))

**Force Provider (Modular):** Force Provider is a concept for, and design of, a Force Provider

Company that will provide quality of life support functions for units in undeveloped theaters. The company will be composed of six modular platoons that can be combined to provide support for up to a brigade-size force. It can provide a rest and relaxation facility during staging, movement, and reconstitution (includes meals, showers, laundry, environmental tents, and a variety of morale, welfare and recreational facilities). One company has been activated and is located at Ft Bragg, NC. A company is to be activated at Ft Hood, TX, in FY95, and four other units planned in the USAR in FY 96. Two equipment sets are being placed on pre-positioned ships. (POC - Mrs. Peterson, DSN 552-8626/PROFS LEA1(PETERSS1))

### **Postal Operations Platoons and Companies**

**(Modular):** TRADOC has redesigned postal organizations to improve unit capabilities and fix DS/ODS postal operations deficiencies. New organizations are modular in structure and include GS postal operations platoons and up to six DS platoons. Company capabilities can be tailored based on the force deployed and will be especially equipped to operate in undeveloped theaters. Some of the key capabilities and new functions include improved bulk and unit mail breakdown and distribution, dispatch of outgoing mail, postal finance, directory, casualty mail, intra-theater mail, and international mail services.

(POC - Mrs. Peterson, DSN 552-8626/PROFS LEA1(PETERSS1))

### **Aviation Restructure Initiative (ARI):**

Standardizes the Army aviation structure. The initiative standardizes assault and attack companies, provides a separate Aviation Support Battalion, creates homogeneous organizations, fixes aviation sustainment weaknesses, and retires old aircraft. This initiative is currently being implemented. A new divisional organization is added to centralize support to the aviation brigade. The division aviation support battalion is being designed with modules to support typical aviation task forces.

(POC - MAJ Engrebretson, DSN 552-8677/PROFS LEA1(ENGBRES))

**MI Restructure Initiative:** New design leverages national and theater assets and creates a seamless downward/focused

capability. It improves responsiveness to commanders (near real time) and balances intelligence functions. As a result of this initiative, structures are more tailorable and better support split-base operations. All source dissemination through ASAS (graphics, data, etc.) command ground stations will increase common view/understanding of a seamless battlefield.

(POC - Miss Rose, DSN 552-8672/PROFS LEA1(ROSEB))

**Corps Materiel Management Center (CMMC)**

**Split-Based Operations (Modular)**. This CMMC is modular in design with the capability to provide minimal on-sight required materiel management support in a force projection environment. It will be attached to the Corps Support Command and will be organized to support divisional, separate brigade, and armored cavalry regimental materiel management centers as well as other corps units. The CMMC rear will remain in a fixed-based location while support modules deploy to the area of operations.

(POC - MAJ Engrebretson, DSN 552-8677/PROFS LEA1(ENGBRES))

**EOD Reorganization (Modular)**: The EOD Reorganization changes the organization and designation of the Explosives Ordnance Detachment Control Team (EODCT) to Ordnance Battalion. It also changes the organization and designation of the Ordnance Detachment to Ordnance Company. This reorganization strengthens the battalion command and control functions, changes team composition and improves the EOD battlefield capability and mobility by increasing the number of EOD response teams and by eliminating unessential/burdensome team equipment.

(POC - MAJ Engrebretson, DSN 552-8677/PROFS LEA1(ENGBRES))

**Mortuary Affairs Support Designs (Modular)**:

This concept/design provides peacetime and wartime support to search, recover, identify, evacuate, and when required, temporarily inter, disinter, and re-inter deceased personnel. Implementation of this program will eliminate the six current nonstandard unit designs and replace them with two MA Collection Company designs

that provide modular support to a force projection Army tailored to theater requirements.

(POC - MAJ Engrebretson, DSN 552-8677/PROFS LEA1(ENGBRES))

**Enhanced Brigades**: This initiative identified standard heavy and light divisions designs for application to the ARNG enhanced brigades. It also incorporated other standard brigade level organization design such as Engineer, MI, and ADA. Changes include: The Air Assault Infantry Battalions are included in the light Infantry Brigades; a divisional Engineer Battalion will replace the Brigade Engineer Company in the heavy division; an ADA Battery will replace the ADA Platoon; a modernized MI platoon has been included; and a mechanized smoke capability has been provided for the Heavy Enhanced Brigade Chemical Section.

(POC - MAJ Engrebretson, DSN 552-8677/PROFS LEA1(ENGBRES))

## **MATERIEL**

*Continued budget cutbacks and downsizing of our force have made it imperative that the Army analyze future warfighting capabilities of the force by evaluating, identifying, and prioritizing "Critical" battlefield systems that best support the Army's "Vision of the Future Battlefield."*

*TRADOC, as the architect of the future Army, has the responsibility to provide an organized, trained, and well equipped modern force capable of maintaining the battlefield edge and to achieve Land Force Dominance as the Army transitions into the 21st century. A means of achieving this goal is the leveraging of technology and modernization of our future organizations, so necessary if we are to maintain the combat superiority we now enjoy. In the next few years, you will see a multitude of system upgrades and fieldings. Some of the materiel improvements are:*





Army Tactical Missile System

**Army Tactical Missile System (ARMY-TACMS) Block IA:** A modification of the current Army-TACMS Block I, Block IA will contain fewer bomblets and incorporate a global positioning system (GPS) assist to the inertial guidance system. The Block IA will provide the capability to attack targets at ranges in excess of 300km. FUE FY97.

(POC - Mr. Hurst, DSN 680-2178/PROFS HURSTJ)

**Advanced Field Artillery Tactical Data System (AFATDS):** A lightweight, distributed architecture computer network that provides command, control and fire direction functions for FA and coordination and planning functions for FS agencies. FUE FY96.

(POC - CPT Smith, DSN 680-2179/PROFS SMITHD)

**Digitization:** The application of information technologies to acquire, exchange, and employ digital information throughout the battlespace. Leverages digital technology and moves digital data between combat platforms by adding seamless connectivity from the foxhole to the NCA. Digitization operationally enhances the situational awareness and force synchronization on the battlefield, while enhancing target acquisition and revolutionizing direct and indirect fire roles. Army objective to digitize a brigade in FY97.

(POC - Mr Poynter, DSN 680-3874/PROFS POYNTERD)

**M4 Carbine:** A shortened variant of the M16A2 rifle which will replace all M3 .45 Caliber

Submachineguns and selected M16A2 rifles and M9 pistols. Eighty percent commonality of parts with M16A2. FUE FY95.

(POC - Herm Schmidt, DSN 680-2415/PROFS SCHMIDTH)

**Medium 7.62mm Machine Gun Upgrade:** The Army is conducting a test and evaluation to select a more reliable weapon to replace M60 machine guns in Active Component infantry units. Primary candidates are the M60E4 from SACO Defense or the M240E4 from FNMI. Both of these models are modified versions of an existing weapon. Providing production funding is secured, first unit equipped for the upgraded 7.62mm MG is scheduled for 1QFY97.

(POC - Herm Schmidt, DSN 680-2415/PROFS SCHMIDTH)

**Global Positioning System (GPS):** Space-based POS/NAV system provides accurate 3-dimensional position, velocity and time information. Fielding of precision location GPS receivers (PLGR) is ongoing. FUE was FY94.

(POC - Mr. Gassaway, DSN 680-5858/PROFS GASSAWAW)

**Enhanced Position Location Reporting System (EPLRS):** A low to medium speed data transmission device with a position navigation capability. EPLRS supports the Army Tactical Command and Control System concept by providing the data communications connectivity between battlefield functional area automated systems. EPLRS fielding starts 2QFY95 to 1st CAV DIV and will be fielded to 1st CAV, 24th ID, and TFXXI NLT 4QFY96.

(POC - Mr. Gassaway, DSN 680-5858/PROFS GASSAWAW)

**M113A3 (Upgrades):** These improvements will allow the M113 mobility matching the rest of the maneuver forces. Upgrades to the M113 consist of external fuel tanks, A3 Reliability Improvement of Selected Equipment (RISE) Power (engine and cross drive transmission upgrades), enhanced armor protection, ramp and belly armor, and improved driver controls. FUE FY94; completion FY02.

(POC - SFC Bridier, DSN 680-4078/PROFS BRIDIERJ)

**Thermal Weapon Sight (TWS):** A replacement for the AN/PVS-4, AN/TVS-5, and AN/PAS-7, this sight uses thermal technology which performs well in severe darkness, adverse weather and obscurant. It has one main body and three interchangeable front optics which change field of view, power, and range. FUE FY96.

(POC - SFC Bridier, DSN 680-4078/PROFS-BRIDIERJ)

**Improved Mortar Ballistic Computer (MBC):** Replaces current M23 MBC. The IMBC will use state-of-the-art technology to provide digital message capability and mortar firing data communications. Funding for FP1 only; FUE FY97.

(POC - LTC King, DSN 680-3949/PROFS KINGM)

**Commercial Space Package (CSP):** The concept behind the CSP is to field a limited, but affordable, near-term space support capability in each of our fielded corps and divisions, today. CSP is one of several initiatives in TRADOC intended to transition the Army into the 21st century. CSP consists of commercial satellites and ground terminals networked to provide JTF/Army commanders with robust communications, weather, and multi-spectral imaging capability. FUE FY95.

(POC - MAJ Congo, DSN 680-2843/PROFS CONGOK)

**"Hunter" Joint Tactical Unmanned Aerial Vehicle (JT-UAV):** The first of 24 Army-bound Hunter UAV RISTA systems (Corps, Division, and ACR - except Light Infantry) rolled out at Ft Huachuca, AZ, in May 1994. This new, near-all weather, 250km+ range, better than 8-hour mission capable, FLIR/TV real time imagery system will FUE at HQ, III Corps in Jun 95. Future additional payloads include Comms/data relay, MTI Radar, and minefield detection. Hunter is the first of a family of UAV which will include Endurance UAV at EAC and Maneuver UAV at maneuver brigade and light infantry division.

(POC - Mr. Undercoffer, DSN 680-3441/PROFS UNDERCOJ)

**Air Volcano:** UH-60 mounted mine launcher, can dispense 960 mines in less than 30 seconds. FUE FY95.

(POC - LTC Volz, DSN 680-2286/PROFS VOLZR)

**Kiowa Warrior:** Advanced Armed Reconnaissance Helicopter capable of flying in day and night; weapon systems consist of Hellfire Missiles, 2.75 inch rockets and .50 Cal MG. FUE FY93.

(POC - CPT Lowery, DSN 680-3992/PROFS LOWERYJ)

**Guardrail Common Sensor (GRCS):** A corps/echelon above corps airborne signal intelligence (SIGINT) system capable of detecting, acquiring, identifying and accurately locating high payoff C3I targets and weapons systems to ranges exceeding 350 kms from the airborne platform. Location accuracies are within specifications for ATACMS/MLRS. This precision radio frequency emitter locating system providing direct sensor to shooter linkage is to be fielded to aviation, artillery, and air defense in FY95.

(POC - Mr. Helderman, DSN 680-3441/PROFS HELDERMC)

**Combat Identification:** This horizontal technology initiative is a multi-phased program to field combat identification devices to complement improvements in DTLOMS. Combat Identification program combines situational awareness and improved target identification to reduce fratricide risk. Quick-fix devices employing currently available technology (I2 and thermal) will be followed by battlefield combat identification system (BCIS). BCIS is a millimeter wave question-and-answer friendly identification device. Integration of BCIS and mid/far-term program with digitized battlefield being worked. BCIS testing will begin Mar 95, with fielding decision made in FY97.

(POC - Mr. Hammond, DSN 680-5864/PROFS HAMMONDB)

**Integrated Meteorological System (IMETS):**

IMETS provides automation and communications support to USAF weather teams. System receives, processes, and collates forecasts, observations, and climatological data to produce weather forecasts and timely and accurate products. Fielding begins FY95.

(POC - Mrs. Hanks, DSN 680-3273/PROFS HANKSJ)

**Longbow Apache:** The Longbow Apache is a multi-mission helicopter. The Longbow system consists of a Multi Millimeter Wave Fire Control Radar, a Radio Frequency Interferometer and Longbow Hellfire missile. System provides a true fire-and-forget adverse weather capability. FUE is FY97.

(POC - Mr. Parker, DSN 680-4246/PROFS PARKERJ)

**M109A4 SP 155mm Howitzer:** A product improved M109A2/A3. Intermediate step required before or simultaneously applied during conversion to M109A5. Materiel Change improves NBC and RAM. Conversion ongoing.

(POC - Mr. Ringler, DSN 680-3214/PROFS RINGLERR)

**M109A5 SP 155mm Howitzer:** A product improved M109A2/A3/A4. Materiel Change adds a modified armament system--same tube as Paladin (M109A6) allowing M109A5 to fire M203 charge and obtain same range as Paladin--30km. Conversion ongoing.

(POC - Mr. Ringler, DSN 680-3214/PROFS RINGLERR)



**M109A6 SP 155mm Howitzer (Paladin):** A product improved M109A2/A3. Incorporates all A4 and A5 improvements plus providing self-locating, self-laying, with on-board automated fire control, increased responsiveness, reliability, and crew survivability. Complete fielding FY99.

(POC - Mr. Ringler, DSN 680-3216/PROFS RINGLERR)

**M119A1 Light Towed 105mm Howitzer:** Air transportable and air dropable with increased range (19km) and responsiveness. Fires all 105mm ammunition plus new M913 HERA and XM 915 DPICM. Complete fielding 4QFY95.

(POC - Mr. Ringler, DSN 680-3216/PROFS RINGLERR)

**Joint Tactical Ground Station (JTAGS):** A transportable, in-theater element of the Tactical Event System (TES). Provides theater commander with capability to process and disseminate near real time warning of tactical ballistic missile (TBM) launches. FUE FY96.

(POC - MAJ Booker, DSN 680-2969/PROFS BOOKERW)

**XM915/916 Dual Purpose Improved Conventional Munition (DPICM), 105mm**

**Cartridge:** DPICM projectile has a submunition payload of 42 dual purpose XM80 submunitions with improved lethality and self-destruct fuze. XM915 is compatible with M119A1 howitzers and the XM916 is compatible with all 105mm howitzers. FUE 4QFY97/IOC 4QFY97.

(POC - CPT Burke, DSN 680-2820/PROFS BURKEG)

**120mm Battalion Mortar System:** Will replace 4.2 inch mortar. Max range 7200 meters/min range 200 meters. System procured in two configurations, towed version (M120) and carrier version (M121) mounted in M1064. FUE (M120) 4QFY93; FUE (M121) 3QFY95.

(POC - LTC King, DSN 680-3949/PROFS KINGM)

**Javelin:** A man-portable anti-tank system for the U.S. Army and U.S. Marine Corps. The system provides high lethality against conventional and reactive armor and will replace

the Dragon. The Javelin is comprised of two major components: a reusable command and launch unit (CLU) and a missile sealed in a disposable launcher container. The CLU incorporates an integrated day/night sight and provides target engagement capability in adverse weather. The CLU may be used in stand-alone mode for battlefield surveillance and target detection. FUE FY96.

(POC - Mr. Strieter, DSN 680-4280/PROFS STRIETEW)

**Firefinder (FF) AN/TPQ-36 Block II:** An improved counterfire radar that eliminates two 2 1/2-ton trucks and replaces them with two HMMWVs, trailers, upgrades to the shelter, and electronics package. System scheduled to be retrofitted with MAPS. FUE 2QFY96.

(POC - SFC Phillips, DSN 680-2178/PROFS PHILLIP3)

**Enhanced Tactical Radar Correlator (ETRAC):**

A tactical mobile ground processor (normally at corps) for advanced synthetic aperture radar system (ASARS) data received from U-2R aircraft via a direct data downlink. ETRAC major function is to provide ASARS imagery to Modernized Imagery Exploitation System for exploitation and target development. XVIII Abn Corps scheduled to receive 1st ETRAC in May 95. ETRAC is C-130 self-deployable. Second ETRAC is slated for 513th MI Bde supporting 3d Army in FY97.

(POC - John Waller, DSN 680-3441/PROFS WALLERJ)

**Modernized Demolition Initiators (MDI):** MDI represents the military application of commercial shock tube technology to detonate explosives. MDI will be the primary system used to prime and detonate military explosives. It offers increased safety and simplicity compared with current systems. Conventional blasting caps and detonating cord will be retained for special applications not suited for MDI. Will begin procurement and fielding in FY95.

(POC - LTC Volz, DSN 680-2286/PROFS VOLZR)

**Wide Area Munition (WAM):** WAM is a ground emplaced munition which detects and then

attacks vehicles from the top at ranges of up to 100 meters. The hand emplaced version (HE-WAM) will be fielded in FY97.

(POC - LTC Volz, DSN 680-2286/PROFS VOLZR)

**Selectable Lightweight Attack Munition**

**(SLAM):** A lightweight, multipurpose munition which can be used as a magnetically fuzed mine, a tripline activated off-route mine, a timed demolition charge or as a command detonated device. When used as a mine, it has a self destruct function. Will be procured in limited quantities for light forces in FY96.

(POC - LTC Volz, DSN 680-2286/PROFS VOLZR)

**Digital Topographic Support System/Quick Response Multi-Color Printer (DTSS/QRMP):**

The DTSS/QRMP program will combine what had previously been two separate systems into one downsized system capable of receiving, (re)formatting, creating, storing, retrieving, updating, merging, manipulating digital topographic data and hardcopy reproduction of topographic products. The system will provide the theater commander and his staff automated and integrated terrain products to enhance and compress the decision-making process across the operational continuum. System fielding is not expected for at least 1 year.

(POC - Mrs. Hanks, DSN 680-4077/PROFS HANKSJ)

**All Source Analysis System (ASAS):** A mobile, automated intelligence processing, fusion and dissemination system designed to provide timely, accurate and relevant all source intelligence and targeting support to battle commanders (Bn through EAC). Block I provides hardware and software to support the tactical operations center support element (TSE) and technical control and analysis element (TCAE) and software to support collateral enclave (CE). Block I extended provides standard ASAS functionality to units not scheduled to receive initial ASAS. Block II combines functions of TSE and TCAE into analysis and control element (ACE), incorporates CE functions into the G2-TOP system and provides for jump operations. Block I and Block I extended fielding continues

throughout the force. Completion of Block I version fielding expected by end of FY96. Block II software development ongoing with phased prototype efforts and will be fielded in late FY95.

(POC - CPT Harris, DSN 680-3274/PROFS HARRISB)

**TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) II:** A HMMWV mounted intelligence dissemination satellite communications system which provides access to national and other level intelligence data bases. SPIRIT provides all-source dissemination capabilities including secure voice, data and fax. SPIRIT will receive, display, and transmit digital imagery, weather and terrain products, templates, graphics and text between CONUS/OCONUS bases and deployed forces. It supports force projection and split-based operations. Will be fielded in FY96. USMC has several systems fielded.

(POC - CPT Harris, DSN 680-3274/PROFS HARRISB)

**TROJAN Transportable Mini Switch (TTMS):** TTMS is a preplanned product improvement of the TROJAN SPIRIT II system. It provides a materiel solution to eliminate a single source of failure at the Fort Belvoir Switching Center. TTMS will further eliminate dual satellite hops and provide TROJAN SPIRIT II connectivity for intra-and inter-theater digital voice switching capability. Employed at theater level and handles up to 12 TROJAN SPIRIT IIs. FUE is 2/3QFY95.

(POC - CPT Harris, DSN 680-3274/PROFS HARRISB)

**Joint Surveillance Target Attack Radar System (Joint STARS):** An Army-Air Force wide area surveillance system to provide battle management and targeting information. Supports situation development and targeting of mobile and fixed ground targets. Joint STARS consists of an Air Force E8C aircraft and Army Ground Station Modules (GSM). The E8C collects moving target indicator (MTI) and synthetic aperture radar (SAR) data using a multi-mode radar. The GSM receives/analyzes processed radar imagery from the E8C. Equipped with CTT, it will display processed SIGINT. The GSM is at brigade echelons and

above. Supports intelligence and targeting functions with near real time interactive displays; can be remoted to additional locations. FUE is FY97.

(POC - CPT Russo, DSN 680-3665/PROFS RUSSOM)

**Ground Based Common Sensor-Light/Heavy (GBCS-L/H):** A next generation divisional system to intercept, locate and process raw signal data in support of intelligence collection, targeting and electronic attack. The GBCS provides target detection, identification and location reports in near real time to brigade and division commanders. GBCS can also jam enemy tactical communications emitters. GBCS can pass targeting data to TACFIRE for quickfire to shooter. GBCS-L supports light divisions/brigades; GBCS-H supports heavy divisions/brigades. The range capabilities of the GBCS-L/H can be extended by use of the aerial system known as Advanced QUICKFIX (AQF). AQF in conjunction with GBCS provides highly accurate locational data via its precision location subsystem. All the components on these three systems are the same with the exception of the vehicle and antennas. FUE FY96.

(POC - Mr. Floyd, DSN 680-3667/PROFS FLOYDW)

**Enhanced TRACKWOLF:** An echelon above Corps high frequency (HF) signals acquisition, collection, analysis, geo-location and reporting system. Targets enemy long haul command and control communications. The system is modular, scalable, automated, soldier portable and consists of three stand-alone stations consisting of nine management, analysis, collection or direction finding positions. Each station can be configured from full capability to direction find only for operating in a building, vehicle shelter, or stacked on top of one another in full transit case configuration. FUE FY96.

(POC - Mr. Floyd, DSN 680-3667/PROFS FLOYDW)

**Patriot Advanced Capability - 3 (PAC-3):** Patriot is a high/ medium advanced surface-to-air guided missile air defense system. PAC-3 is a major upgrade to the Patriot system consisting of integrated, complementary improvements that will be implemented by a series of phased,



incrementally fielded materiel changes beginning in FY96. PAC-3 will increase battlespace and lethality by enhancing current detection and engagement capabilities. The PAC-3 missile (ERINT) is a key component of the overall improvements to the Patriot system. It will provide essential increases in battlespace, accuracy, and kill potential against TBMs. Total PAC-3 capability projected to be completed by end of FY98.

(POC - Mr. Woolever, DSN 680-2932/PROFS WOOLEVE2)

**M1A2**: Deliveries of the M1A2 upgrade tank system for the U.S. Army began in the fall of 94 and are scheduled to continue through the turn of the century with a production of 1079 tanks. FUE is scheduled for 1CD 1QFY96. By year 2005 the technology used to develop and build the M1A2 will be nearly 20 years old. The armor community is developing a campaign plan for modernizing the tank force for the foreseeable future. This plan includes a mid-term (2005/2005) tank system currently known as Tank 1080.

(POC - MAJ Gillis, DSN 680-4389/PROFS GILLISJ)

**Up-Armored HMMWV**: This HMMWV Vehicle (M1109) will be produced in a Scout, MP, and an Air Force variant. System possesses increased ballistic protection against small arms fire, artillery airburst, small antipersonnel mines, light anti-armor mines, and unexploded artillery submunitions for the crew compartment. User testing will be conducted in March at Ft Knox. Twelve XM1109 variant versions were deployed with the 16th MP BDE, XXVIII Corps to Haiti. Thirty XM1109 Variants will be deployed to Haiti with 3rd Squadron, 2ACR(L) in 1QTR FY95. FUE 4QTR FY95 to 2ACR(L).

(POC - MAJ Stevens, DSN 680-3124/PROFS STEVENS1)

**Long Range Advance Scout Surveillance Systems (LRAS3)**: This system will provide the Maneuver Commander timely, accurate battlefield information. LRAS3 is a Scout mounted target acquisition system, man portable, day/night, all weather system that will allow Scouts to identify/acquire enemy outside the enemies engagement ranges. FY9601 POM funded for 350 systems. FUE FY01.

(POC - MAJ Stevens, DSN 680-3124/PROFS STEVENS1)

**Improved Target Acquisition System (ITAS)**: ITAS is an upgrade to current ground TOW and HMMWV TOW target acquisition and fire control systems. ITAS improves target detection and acquisition range. Pathfinder for 2nd generation FLIR technology and ITAS will allow for growth for follow-on to TOW Missile. First prototype delivery date in JAN 95. FUE 4QFY97.

(POC - MAJ Stevens, DSN 680-3124/STEVENS1)

**Army Pre-positioning of Supplies and Equipment (PREPO) Afloat**: A component of the Army Strategic Mobility Program that includes sustainment supplies and equipment for a contingency corps, a humanitarian effort, a heavy brigade, and a port opening capability. Supplies include all classes needed to sustain deployed contingency corps units up to C+30. Humanitarian support and port opening ships provide watercraft, trucks, forklifts, cranes, container handlers, food, and shelter items. Heavy brigade ships have equipment and 15 days of sustainment supplies for 2 mechanized and 2 armor battalions. Heavy brigade have completed uploading and ships recently arrived on station.

(POC - Mr. Sova, DSN 680-3005/PROFS SOVAJ).

**Improved Fox -- NBC Reconnaissance System (NBCRS)**: NBCRS is an armored reconnaissance vehicle equipped to detect, sample, identify, mark, and report the presence of NBC hazards. NBCRS will rapidly and accurately determine extent and nature of NBC contamination hazard over a specified area with expeditious transmission of information to supported units. Planned improvements will allow for digital communication to disseminate critical information to supported units via the Maneuver Control System (MCS). First unit equipped is FY98 to Force Package 1 units.

(POC - MAJ Welcer, DSN 680-4412/PROFS WELCERS)

**UH-60Q MEDEVAC Helicopter:** The UH-60Q will provide significantly improved medical, navigation and communication capabilities over the currently employed MEDEVAC (UH-1/UH-60A) aircraft. Enhanced medical capabilities are needed to provide wounded or injured soldiers with state-of-the-art medical care to increase their survival chances on the extended future battlefield. The mission of the UH-60Q is to evacuate casualties from forward locations; conduct combat search and rescue; transport emergency medical teams and supplies; and perform ship-to-shore medical evacuation. UH-60Q aircraft will be fielded to Force Package 1 "first-to-fight" divisions starting in FY98 if funding is approved.

(POC - CPT Cournoyer, DSN 680-3158, PROFS - COURNOYR)

**Aircraft Nondestructive Test Equipment**

**(NDTE):** NDTE will provide Army Aviation Maintenance with state-of-the-art commercial equipment capable of inspecting aircraft components and structures for material defects/damage without aircraft disassembly. NDTE will greatly simplify inspection procedures, reduce time required to perform inspections and also be capable of inspecting composite materials found on modern Army aircraft. The NDTE program includes Eddy current, Ultrasonic, Harmonic Bond, and X-Ray test equipment. NDTE will be procured through a multi-service procurement contract. Resident training will be conducted by the U.S. Air Force at their training facilities. First unit equipped is to Force Package 1 divisional and nondivisional AVIM units.

(POC - Mr. Holm, DSN 680-2184, PROFS HOLMS)

## **SOLDIER**

*The Army's most valuable resource is the Soldier. Regardless of how superior our leadership, weapons, and technologies might be, it is the soldier who is the backbone of the Army. We are providing a comprehensive program to modernize the soldier as a battlefield system and to maximize warfighting capabilities by enhancing lethality, command and control, survivability, sustainment, and mobility. Some of the Army's modernization initiatives include:*



**Enhanced Land Warrior (ELW):** The total Army program for modernizing the soldier as a system. It includes all soldiers and provides for acquisition of all items worn, carried or consumed by soldiers for individual use in a tactical environment. The ultimate result of ELW will be the full integration of the soldier into the digitized battlefield. ELW will produce three major variants of an integrated fighting system: Land Warrior for dismounted soldiers, Air Warrior for air crewmen, and Mounted Warrior for armored vehicle crewmen. The dismounted system includes a modular weapon with thermal sight, improved ballistic protection, a soldier computer/radio, combat ID and other capabilities. Initial fielding of the dismounted Land Warrior System is programmed to begin in FY 2000.

(POC - Mr. Stefaniw, DSN 680-3117/PROFS STEFANII)

**Soldier Enhancement Program (SEP):** A quick reaction program initiated by Congress in 1990 to expedite modernization of infantry soldier equipment. The program has since been expanded to include all soldiers, and to address quality of life issues in the field. The focus is on nondevelopmental solutions which can be ready for procurement in 36 months or less. By the end of 1994, 148 projects will have been initiated, and 41 completed. Eight new starts are programmed for FY95, including the individual soldier radio, the improved medium machine gun and improved face paint. The program includes small arms, optics, munitions, clothing and individual equipment, and individual combat rations.

(POC - Mr. Stefaniw, DSN 680-3117/PROFS STEFANII)

**Force Provider (FP):** Transportable complex of kitchens, showers, laundries, billets, latrines and morale support items. Designed to improve a soldier's quality of life in the field, FP can also be used for humanitarian aid and disaster relief. One module can support approximately 550 soldiers/personnel. A Force Provider module is currently deployed to Guantanamo Bay for support, and another will soon be pre-positioned in the Pacific.

(POC - CPT Hamilton, DSN 680-3039/PROFS HAMILTOA)

## BATTLE LABS

*Maximizing our soldiers' battlefield advantage by breaking paradigms.*



Battle Labs are a United States Army Training and Doctrine Command (TRADOC) innovation to experiment with changing methods of warfare beginning with the battlefield dynamics and with soldiers and leaders as the center of focus.

The program was publicly announced in April 1992 and began in May 1992. The name is meant to convey the image of soldiers experimenting with warfighting concepts in order to generate battlefield insights.

Battle Labs conduct holistic appraisals of critical operational capability requirements needed to meet the changing nature of warfighting across all of the TRADOC domains—doctrine, training, leader development, organization design, materiel, and soldier systems. The appraisals are holistic in that they examine the needs of the entire combined arms and services team in a wide variety of relevant current and future scenarios. This, in turn, facilitates horizontally integrated requirements definition conducted concurrently with concept development which

dramatically streamlines the entire process of fielding new capabilities.

Warfighting concepts generated from TRADOC Pamphlet 525-5, Future Full-Dimensional Operations, drive Battle Lab experiments. The experiments, labeled Advanced Warfighting Experiments (AWE), are progressive and iterative mixes of constructive, virtual and live simulations conducted with field soldiers and units in tactically competitive environments.

There are six battle labs--  
Early Entry Lethality and Survivability Battle Lab, Fort Monroe, Virginia;  
Mounted Battle Space Battle Lab, Fort Knox, Kentucky; Dismounted Battle Space Battle Lab, Fort Benning, Georgia; Depth and Simultaneous Attack Battle Lab, Fort Sill, Oklahoma;  
Battle Command Battle Lab, with elements at Fort Leavenworth, Kansas, Fort Gordon, Georgia, and Fort Huachuca, Arizona; and the Combat Service Support Battle Lab, Fort Lee, Virginia.

A Memorandum of Agreement between FORSCOM and TRADOC aligns designated units to each battle lab to facilitate experiments. A Memorandum of Understanding between TRADOC and the Marine Corps Combat Development Command (MCCDC) ensures full participation by the USMC in appropriate battle lab experiments. Battle Labs have also established close ties with the Air Combat Command, Air Mobility Command, Military Sealift Command, Naval Doctrine Command, and several allied armies.

(POC - BATTLE LABS LTC EWING, DSN 680-5895/PROFS EWINGJ)



Force XXI Joint Venture uses TRADOC Pamphlet 525-5, Force XXI Operations, as its

conceptual underpinning for the design of the 21st century Army. To meet the 21st century warfighting challenges, the Army will take aim at future doctrinal, structural and materiel needs without losing focus on today's strategic security requirements. The Army, through Force XXI, will examine organizational and technological alternatives and explore new ideas to ensure success on future battlefields. Key ingredients to implement this change are quality soldiers and leaders.

Joint Venture is one of the three axes in the Force XXI Campaign Plan; it will focus on the redesign of the operational Army. Joint Venture is the main effort in the Force XXI campaign plan and the CG, TRADOC, is CINC, Joint Venture. The TDA/Institutional Army axis and Assimilation/Acquisition axis are supporting efforts that are tasked with redesign of Title 10 supporting institutional and sustaining base Army and acquisition and assimilation of the technology to enable the concepts and designs from the Joint Venture axis. Joint Venture's mission is to develop and execute an Army-wide joint venture to attain Force XXI fielding decisions by FY2000. Joint Venture will design and validate Force XXI operating force elements by continuing robust advanced warfighting experiments (AWE).

Joint Venture will serve as the focal point for integration efforts directed towards developing the basic organization and operational concept for Force XXI and will inform the Army of the implications of full-dimensional operations. Joint Venture will do this on two axes of advance, a Conceptual axis and an Experimental axis.

**Conceptual Axis:** The Conceptual Axis is rooted in concepts outlined in TRADOC PAM 525-5. This pamphlet, "Force XXI Operations," will be the conceptual underpinning for all Force XXI experiments. The centerpiece of TRADOC PAM 525-5 is a 21st century Army, based on quality soldiers and leaders, in versatile mission-tailored units, enhanced by the power of information, superior technology, and effective battle command. As Force XXI is designed, considerable attention must be focused on a force that is modular in design and tailorable to meet contingencies from OOTW to conventional war. These concepts will result in development of Force XXI operating forces, starting initially with the division redesign and working up and down to examine and redesign all echelons, as necessary. Other key elements in the concept

axis include the Army Battle Command System (ABCS) and a reengineering of the Land Warfare University.

**Experimental Axis:** The Experimental Axis initially follows the conceptual axis, and each will inform the other through the course of Force XXI. Based on the results of Battle Lab experiments to date and the emerging Force XXI Division Organization and Operation Plan, Advanced Warfighting Experiments (AWE) will be conducted to validate organizational designs. Participation by Battle Labs, the Experimental Force (ExFor), and other units/experimental agencies, beginning in FY95, will be critical. These hands-on experiments will address the full range of operations to include joint and combined operations. The results of LAM GHQx excursions, Advanced Concept Technology Demonstrations (ACTD), Advanced Technology Demonstrations (ATD), and Operational Tests also will influence organizational redesign and technological fielding decisions.

Conducting holistic appraisals of critical warfighting capabilities, the Battle Labs are changing the way the Army prepares for and wages war. Battle Labs experiment using constructive, virtual and live simulations to examine warfighting concepts across doctrine, training, leader development, organizational design, materiel and soldier systems (DTLOMS). The Battle Lab holistic review encompasses the entire combined arms and services team. This facilitates vertical and horizontal integration concurrently with concept development, thereby streamlining the acquisition process. To date, this process has developed the Commercial Space Package, Total Asset Visibility, 2d Generation FLIR and digitized communications and other systems which are already in the Army's Program Objective Memorandum (POM) and will greatly enhance the warfighting capabilities of the 21st century force projection Army.

The Battle Lab Integration, Technology and Concepts Directorate is responsible for Force XXI and Joint Venture actions at HQ TRADOC.

**Brigade 96 AWE:** Brigade 96 will form the design of the operating forces for Force XXI through experimentation with a fully digitized brigade. The brigade will provide digital information-age capabilities and connectivity to all battlefield operating systems within a brigade

task force and connectivity to all external elements normally associated with a brigade in combat operations. It will also use new organization concepts and develop, refine and analyze new information-age TTPs. The AWE will conduct constructive, virtual and live simulations against OPFOR in tactically competitive environments. The Brigade 96 will consist of four major phases. The first phase will consist of experimentation in FY 95 to develop TTP for brigade task force full-dimensional operations; refine information-age battle command processes; determine required organizational changes; identify training and leader development voids/implications; and provide feedback on digital technology needs. Phase two will use the FY 95 experimentation results to field a brigade-size force (BDE 96) from the EXFOR that is fully digitized with appliqué and embedded systems. Phase three is the execution of an NTC rotation in late 1996 or early 1997 to answer the Brigade 96 hypothesis. Phase four consists of feeding the results back into the Force XXI process leading to Force XXI design and fielding decisions and division full-dimensional operations.

**Mobile Strike Force (MSF) 95:** MSF 95 will inform the design of operating forces for Force XXI. It is an experimental unit with a staff of officers from the Command and General Staff College that fights a simulated 21st century division during the PRAIRIE WARRIOR Battle Command Training Program's exercise at Fort Leavenworth. CG, TRADOC, intent for MSF is to assist in building a land combat force from Battle Lab input. MSF will use organizational, materiel, and operational concepts derived from TRADOC Pam 525-5 that may not exist today in order to significantly increase lethality, survivability, and tempo of land combat in the 21st century. MSF 95 capitalizes on leaders who will be senior leaders and commanders of 21st century Army units. It will derive insights using an iterative process and constructive simulation to experiment with the output of Battle Labs across DTLOMS. Insights will inform Senior Army leadership on future investment decisions and focus an industrial base for the future. Additionally, it will assist in the streamlining of staff functions and provide insights to new operational relationships for Force XXI.

**Warrior Focus 96-02:** One of the major initiatives leading to BDE 96 and Force XXI, WARRIOR FOCUS 96-02 will establish a baseline for the digitization of the dismounted soldier in a light-heavy-SOF Task Force organized with a light infantry battalion as its central element. The AWE will look across all Battle Field Operating Systems and concentrate on warfighting benefits to support Force XXI doctrine, equipment and tactics. It will capitalize on major initiatives and lessons learned from NTC rotation 94-07. The AWE will be conducted at the JRTC, Ft. Polk, LA in November 1995.

**Atlantic Resolve/Synthetic Theater of War Experiment(STOW-E):**

Atlantic Resolve/STOW-E is a EUROM/USAREUR experiment that will integrate information-age technology into an operational corps headquarters to improve the commander's ability to see the battle, communicate his intent, and synchronize the battle. STOW-E will simultaneously exercise a Battalion Task Force in a live environment (Hohenfels maneuver box), a Battalion Task Force in a constructive environment (BBS), and a Battalion Task Force in a virtual environment (SIMNET). The BCBL(L) will assist USAREUR to explore ways to develop, integrate, and assess new command post initiatives. The experiment will focus on distributed decision-making using several projects. The major subordinate projects are: the tactical multi-media interface prototype (TMIP) which provides remote site video-teleconferencing, and the rear area conference network (RACN) which provides video-teleconferencing and automation for the COSCOM.

**Focused Dispatch:** Advanced Warfighting Experiment (AWE) Focused Dispatch represents a continuation of AWE 94-07. This experiment will evaluate processes and functions of digital connectivity between Fire Support, Intelligence, Combat Service Support and Battle Command in a battalion task force which will provide Tactics, Techniques and Procedures (TTP) insights for BDE 96. AWE NTC 94-07 provided many valuable insights and lessons learned that Focused Dispatch will use to further develop the mounted battle dynamic and its interaction with other combat arms and services. Coordination with other participating Battle Labs and functional area proponents is ongoing, ensuring functional digital connectivity across all BOS and



new technologies that demonstrate increased warfighting capabilities. Focused Dispatch will use constructive, virtual and live simulations in its experimentation. Pre/Post Janus and SIMNET exercises will be used to develop and refine TTP associated with digitized, information-age warfare. Focused Dispatch, with the Mounted Battlespace Battle Lab as the lead, has begun experimentation work designed to follow-up emerging digital technologies and insights and will provide the Army an insightful look at full-dimensional digitized operations.

**Theater Missile Defense:** Theater Missile Defense (TMD) is a holistic review that will integrate National, Joint and Army capabilities into a cohesive tactical missile defense force able to counter the enemy across multiple phases of operations (pre-attack, attack and post-attack). TMD combines attack operations, active defense and passive defense operations into a robust C4I system. The synergy attained provides strategic effects, allowing no sanctuary for conventional and unconventional tactical and ballistic missile threat operations. TMD provides insights to other AWEs and BDE 96 which will further enhance the survivability of Force XXI operating forces. It is being conducted by the Depth and Simultaneous Attack Battle Lab with participation from other battle labs and over 30 agencies. Its culminating event will occur during exercise Roving Sands at Ft Bliss, TX, in May 1995.

## THE EXPERIMENTAL FORCE

**Background:** The rapidly changing world is influencing our transition to the Army of the 21st Century. Our potential military competition is accelerating its modernization at a pace unthinkable during the Cold War. New warfighting concepts are required to maximize the potential of digitization and new technologies. Within Force XXI, the Joint Venture has the responsibility for the design of the Army's operating forces for the 21st century. Joint Venture will use the Battle Lab experimental process to examine concepts, Tactics, Techniques and Procedures (TTP) and materiel across Doctrine, Training, Leader Development, Organizations, Materiel and Soldiers (DTLOMS) to inform the design of Force XXI operating forces.

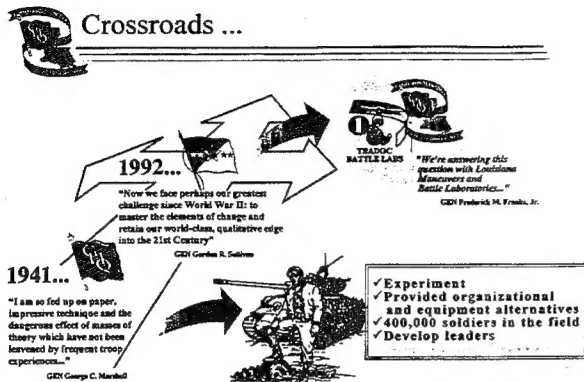
To ensure institutionalization of the Force XXI experimental processes, the Army leadership has designated the 2nd Armored Division at Fort Hood, TX, as the Experimental Force (EXFOR). The CG, TRADOC, is the Experiment Director. The EXFOR will be under the operational control (OPCON) of TRADOC for experimental purposes starting 15 March 1995 to completion of the Joint Venture mission. The EXFOR will be the principal organization experimenting with concepts described in TRADOC Pamphlet 525-5 to gain insights for America's Army of the 21st century.

**Intent:** The intent of the EXFOR is to field a force guiding our Army to Force XXI--the Army of the 21st Century. Force XXI will be organized, equipped, and trained to execute full-dimensional operations. The EXFOR will be one of the primary means for force design, selection and integration of technology, and development of TTP/doctrine for full-dimensional operations. It will be an ongoing experiment, where results of one experiment lead experiments and requirements for the future. The EXFOR will experiment with future war and operations other than war (OOTW), feeding insights back into the DTLOMS process. The EXFOR will be the primary means to experiment with divisional redesign issues leading to objective force design for Force XXI. While the primary purpose for the EXFOR is experimentation, the force will be capable of deploying and executing war or OOTW operations in support of major regional contingencies (MRC) or other operations. Force XXI organizations will promote flexibility with an increased capability to tailor the Force based on METT-T.

**Experimentation and Testing:** The EXFOR will conduct experiments and operational tests in support of TRADOC and OPTEC. It is a division-sized experiment in full-dimensional operations. Experiments, primarily in application of high technology and modernizing across DTLOMS remain the primary effort of the EXFOR. Experiments will be conducted examining Battle Lab initiatives; equipment, force design and TTP, providing input to future doctrine, organizations, TTP and acquisitions. Analytic support from various agencies (OPTEC, TRAC, etc.) will provide quantitative and qualitative insights and conclusions from Force XXI experiments.

(POCs - FORCE XXI JOINT VENTURE, LTC Greer/MAJ McFadden  
DSN 680-4472/5749/PROFS  
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## LOUISIANA MANEUVERS



GEN Sullivan looked at the situation facing the Army of the 1990's and realized there was a parallel with the situation that faced GEN Marshall in 1941. The reality GEN Marshall faced then--

- Imminent entry into WWII.
- Large, untested Army.
- Growing resources.
- Difficulties with Congress, the Executive branch, & popular support.

Today's reality that GEN Sullivan faces, while differing in detail, is just as wrenching--

- World's preeminent Army.
- New National Military Strategy ... Force Projection Army.
- Drawdown, declining resources.
- Ambiguous threat.

The tough challenge facing today's Army is meeting those realities while maintaining a strong and ready force. The Louisiana Maneuvers (LAM) of the 1990's provides the catalyst and focus for the difficult changes the Army is undergoing.

The Chief of Staff is the Director of LAM and the TRADOC Commander is the Deputy Director. The Army's senior leadership provides direct input into the new Louisiana Maneuvers through

their membership in the Board of Directors (BoD), the governing body chaired by the CSA. By this mechanism the major concerns of the senior leadership receive the necessary attention and action. Charged with managing the process, the Louisiana Maneuvers Task Force is the linchpin for the process, coordinating and synchronizing the efforts of the agencies investigating LAM issues.

Louisiana Maneuvers is a process a means to an end. Issues are approved by the BoD and proponents are assigned from MACOMs. Each proponent studies the assigned issue using available simulations:

- Live (CTCs, FTXs).
- Constructive (computer models).
- Virtual (SIMNET is prime example).

The LAM process also incorporates lessons learned from real world operations. Basing their findings and recommendations on solid empirical evidence, the proponents assemble decision packages for their issues for the BoD, to whom they present courses of action. The BoD recommends a decision for each issue to the Chief of Staff for his approval and order for implementation.

With the advent of Force XXI, the CSA revised the scope for both the LAM process and the Task Force. Force XXI is geared toward the redesign of the operational force, the reengineering of the Title 10/TDA Army, and the program-matics of horizontal technical integration of the digitization of the Army. The LAM process is now primarily dedicated to the Force XXI vision, focusing the efforts on issues that will materially aid the move to Force XXI. The Task Force is the CSA's executive agent for Force XXI and is charged with managing the Departmental Force XXI synchronization and the Board of Directors process to actually bring change into reality as the move is made to fully embrace information-age technology.

(POC - Louisiana Maneuvers Task Force Initiatives Group, LTC Thomson, DSN 680-5327/PROFS THOMSONM)

**FOR ADDITIONAL INFORMATION ON THIS UPDATE CONTACT:**

HQ TRADOC  
Commander's Integration Group  
ATTN: ATCS-I (Mr. Gary May)  
Fort Monroe, VA 23651-5000

OFFICE DSN 680-2902 COMMERCIAL (804) 727-2902  
FAX DSN 680-3283 COMMERCIAL (804) 727-3283

OV/VM (formerly PROFS) address MON1(MAYG)  
INTERNET/DDN E-MAIL ADDRESS: MAYG@MONROE-EMH1.ARMY.MIL

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